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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/037,588	10/23/2001	Michael Kenneth Brown	401052-A-01-US(Brown)	6479

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EXAMINER

PHAN, JOSEPH T

ART UNIT	PAPER NUMBER
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2645

10

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/037,588

Applicant(s)

BROWN ET AL.

Examiner

Joseph T Phan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 11, 17-21, and 27-30 rejected under 35 U.S.C. 102(b) as being anticipated by Solot, Patent #5,644,625.

Regarding claims 1, 11, and 17 Solot teaches a method for doing call classification on a call to a destination endpoint, comprising the steps of: receiving audio information from the destination endpoint(col.2 lines 3-19) and detecting speech or tones in received audio information analyzing using automatic speech recognition the received audio information for words in response to the detection of speech(col.5 lines 31-62); and analyzing using automatic speech recognition the received audio information for tones in response to the detection of tones (col.5 lines 31-62); determining a call classification for the destination endpoint in response to the analysis of words or the analysis of tones (col.5 lines 1-4, 31-62 and col.6 lines 20-25).

Regarding claims 2 and 18, Solot teaches the method of claims 1 and 17 wherein the analysis for the first type of classification is analyzing the audio information for words (col.2 lines 3-19 and col.6 lines 1-36; one number announced is a word)

Regarding claim 3 and 19, Solot teaches the method of claims 2 and 18 wherein the analyzed words are formed as phrases words (col.2 lines 3-19 and col.6 lines 1-36; the telephone number is a phrase).

Regarding claims 4 and 20 Solot teaches the method of claims 2 and 18 wherein the analysis for the second type of classification is analyzing the audio information for tones (col.5 lines 1-4 and 31-62)

Regarding claims 5 and 21 Solot teaches the method of claims 4 and 18 wherein the step of receiving audio information further comprises detecting speech or tones in the audio information(col.5 lines 1-4, 31-62 and col.6 lines 20-25).

Regarding claim 27, Solot teaches a call classifier for determining the call classification of a called destination endpoint, comprising:
an automatic speech recognizer for detecting first characteristics in audio information received from the called destination endpoint, the automatic speech recognizer further detecting second characteristics in the audio information received from the called destination endpoint(col.5 lines 1-4, 31-62 and col.6 lines 20-25);
and inference engine for classifying the call in response to the automatic speech recognizer (Fig.1 items 5 and 13 and col.5 lines 31-62; the voice recognition board with the computer is an inference engine which infers by a confidence level what the word announced is).

Regarding claim 28, Solot teaches the call classifier of claim 27 wherein the first characteristics are words (col.2 lines 3-19 and col.6 lines 1-36; one number announced is a word).

Regarding claim 29, Solot teaches the call classifier of claim 28 wherein the words are formed into phrases (col.2 lines 3-19 and col.6 lines 1-36; the telephone number is a phrase).

Regarding claim 30, Solot teaches the call classifier of claim 28 wherein the second characteristics are tones (col.5 lines 1-4 and 31-62).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-10, 12-16, 22-26, and 31 rejected under 35 U.S.C. 103(a) as being unpatentable over Solot in view of Trandal et al., Patent #6088428.

Regarding claims 6, 8, 12, 14, 22, 24, and 31, Solot teaches the methods and call classifier of claims 5-6, 11-12, 21-22, and 30 wherein the step of analyzing for the first and second types of classification is responsive to the detection of speech and/or tone in the audio information.

Solot is silent on executing a Hidden Markov Model to determine the presence of words or tones in the audio information.

Trandal discloses using a Hidden Markov Model to determine the presence of words and/or tones in audio information (col.8 lines 16-25 and col.23 lines 17-28)

At the time the invention was made, it would have been obvious to a person of

ordinary skill in the to use the Hidden Markov Model as taught by Trandal to determine the presence of words or tones. One of ordinary skill in the art would have been motivated to do this because the Hidden Markov Model is a common and well-known algorithm for recognizing speech as disclosed in Solot's speech recognition system.

Regarding claims 7, 13, and 23, Solot teaches the methods of claims 6, 12, and 22 wherein the step of executing comprises the step of using a grammar for speech (col.5 lines 1-4, 31-62 and col.6 lines 20-25).

Regarding claims 9, 15, and 25, Solot teaches the method of claims 8, 14, and 24 wherein the step of executing comprises the step of using a grammar for tones(col.5 lines 1-4, 31-62 and col.6 lines 20-25).

Regarding claims 10, 16, and 26, Solot teaches the method of claims 8, 14, and 24 wherein the step of determining comprises the step of executing an inference engine (Fig.1 item 13, col.5 lines 1-4, 31-62 and col.6 lines 20-25; the voice recognition board is an inference engine which infers by a confidence level what the word announced is).

Response to Arguments

3. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph T Phan whose telephone number is 703-305-

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3206. The examiner can normally be reached on M-TH 9:00-6:30, in every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on 703-305-4895. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

JTP
November 26, 2003

FAN TSANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

A handwritten signature in black ink, appearing to read 'Fan Tsang', is written over the printed name and title.